



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/007,284	11/09/2001	Jan Weber	S13.12-0125	4955

7590

03/02/2004

Christopher L. Holt
WESTMAN CHAMPLIN & KELLY
International Centre - Suite 1600
900 South Second Avenue
Minneapolis, MN 55402-3319

EXAMINER

SHAW, SHAWNA JEANNINE

ART UNIT	PAPER NUMBER
----------	--------------

3737

DATE MAILED: 03/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/007,284

Applicant(s)

WEBER, JAN

Examiner

Shawna J. Shaw

Art Unit

3737

-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2-4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. In response to applicants' election of group II with traverse and corresponding arguments that group III must be used in the context of magnetic resonance imaging applications and does not have separate utility from group II, the examiner has withdrawn the restriction requirement as set forth in paper number 5.

Claim Interpretation

2. Regarding claim 11, the examiner interprets the preamble as limiting the claim to magnetic resonance imaging applications as argued by applicant in the response filed 1/29/04.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000.

Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 11-13, 15-17, 21, 22, 24 and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Rau et al.

Regarding claims 11-13 and 15-17, Rau et al. teaches an elongated medical device including an elongated body (10) and having (e.g., ceramic) reinforcement fibers (50) – suitable for magnetic resonance applications - wrapped or braided thereabout and surrounded by polymeric coating (54). See col. 8 lines 57-67.

Regarding claims 21, 22 and 24, Rau et al. teaches a wrapped or braided reinforcement member composed of (e.g., ceramic) fibers (50) – suitable for magnetic resonance applications - and having polymeric coating (54) disposed thereabout. See col. 8 lines 57-67. Further regarding claim 25, the examiner notes that applicant admits that scratches are inherent to ceramic materials (specification p. 13 lines 11-14).

4. Claims 11-13, 15, 17, 21, 22, 24 and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Cooper et al.

Regarding claims 11-13, 15 and 17, Cooper et al. teaches an elongated medical device including an elongated body (30) and a reinforcement mechanism (10) wrapped thereabout comprising: an elongated ceramic member (20) – suitable for magnetic resonance applications - covered with a polymeric coating (22).

Regarding claims 21, 22 and 24, Cooper et al. teaches a coiled reinforcement member including an inner portion/elongated fiber (20) which may be composed of ceramic (col. 4 lines 26-28) – suitable for magnetic resonance applications - and an outer polymeric portion/coating (22). Further regarding claim 25, the examiner notes

that applicant admits that scratches are inherent to ceramic materials (specification p. 13 lines 11-14).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 14 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rau et al. in view of Pinchuk.

Regarding claims 14 and 23, Rau et al. differs from the claimed invention in that a pyrolytic carbon coating is not explicitly addressed. Pinchuk teaches that pyrolytic coatings are well known for their biocompatibility (col. 7 lines 17-22). It would have been obvious at the time the invention was made to a person of ordinary skill in the art to use a pyrolytic coating as taught by Pinchuk in the invention as taught by Rau et al. to improve bio-compatibility as well known in the art.

6. Claims 18-20 and 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rau et al., in view of Välimaa et al.

Regarding claims 18-20 and 26-28, Rau et al. does not expand on the type of ceramic materials used. Välimaa et al. teaches it is known to use medical implants reinforced with ceramic materials such as SiC and C (see claims 11 and 19). See also col. 2 lines 35-40. It would have therefore been obvious at the time the invention was made to a person of ordinary skill in the art to employ SiC or C in the ceramic fibers of

Rau et al. as are well known expedients in the art. Moreover, although Välimaa et al. does not expressly disclose aluminum oxide, at the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to use an aluminum oxide ceramic because applicant has not disclosed that aluminum oxide provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected applicant's invention to perform equally well with either SiC, C or Al₂O₃ because they all perform the same function of providing high-strength, low thermal-conductivity reinforcement.

7. Claims 1-3, 5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable Cooper et al. in view of Atalar et al. '980.

Regarding claims 1-3, 5 and 7, although Cooper et al. is directed toward image-guided placement of a medical implant, such as a stent, an antenna is not specifically addressed. Atalar et al. teaches an image-guided device comprising an antenna (e.g., 104, 504) for use with a variety of interventional applications such as stent delivery. See col. 4 lines 40-42 and col. 18 line 50 – col. 19 line 63. It would have been obvious at the time the invention was made to a person of ordinary skill in the art to deliver the stent of Cooper et al. with the image-guided device of Atalar et al. to provide improved anatomical/pathological examination of immediately surrounding body structures.

8. Claims 4, 14 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cooper et al., or Cooper et al. in view of Atalar et al., in view of Pinchuk.

Regarding claims 4, 14 and 23, Cooper et al. differs from the claimed invention in that a pyrolytic carbon coating is not explicitly addressed. Pinchuk teaches the use of

anti-thrombogenic pyrolytic coatings for stents (col. 7 lines 17-22). It would have been obvious at the time the invention was made to a person of ordinary skill in the art to use a pyrolytic coating as taught by Pinchuk in the invention as taught by Cooper et al. to improve bio-compatibility as well known in the art.

9. Claims 6 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable Cooper et al., or Cooper et al. in view of Atalar et al., in view of Richter et al.

10. Regarding claims 6 and 16, Cooper et al. differs from the claimed invention in that a coil stent is disclosed. Richter et al. demonstrates that suitable stent configurations include coil, braids, zig-zags, etc. (col. 3 lines 29-34). It would have therefore been obvious at the time the invention was made to a person of ordinary skill in the art to employ a woven, or braided, stent as taught by Richter et al. in the invention as taught by Cooper et al., or Cooper et al. in view of Atalar et al. as a well known expedient in the art.

11. Claims 8-10, 18-20 and 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cooper et al., or Cooper et al. in view of Atalar et al., in view of Välimaa et al.

Regarding claims 8-10, 18-20 and 26-28, although drawn to a biocompatible medical stent/implant which may be composed of ceramic fibers, Cooper et al. does not explicitly address the type of ceramic materials used. Välimaa et al. teaches it is known to use medical implants reinforced with ceramic materials such as SiC and C (see claims 11 and 19). See also col. 2 lines 35-40. It would have therefore been obvious at the time the invention was made to a person of ordinary skill in the art to employ SiC or C in the ceramic fibers of Cooper et al. as are well known expedients in the art.


Moreover, although Välimaa et al. does not expressly disclose aluminum oxide, at the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to use an aluminum oxide ceramic because applicant has not disclosed that aluminum oxide provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected applicant's invention to perform equally well with either SiC, C or Al₂O₃ because they all perform the same function of providing high-strength, low thermal-conductivity reinforcement.

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shawna J. Shaw whose telephone number is (703) 308-2985. The examiner can normally be reached on 8:00 a.m. - 4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dennis Ruhl can be reached on (703) 308-2262. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-3590.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0858.


Shawna J. Shaw
Primary Examiner
2/19/04